

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049958 A1

(51) International Patent Classification⁷: **E21B 21/00**

(74) Agent: AS BERGEN PATENTKONTOR; Strandgaten
198, P.O. Box 1998 Nordnes, N-5817 Bergen (NO).

(21) International Application Number:
PCT/NO2004/000353

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(22) International Filing Date:
17 November 2004 (17.11.2004)

(25) Filing Language: Norwegian

(26) Publication Language: English

(30) Priority Data:
20035172 21 November 2003 (21.11.2003) NO

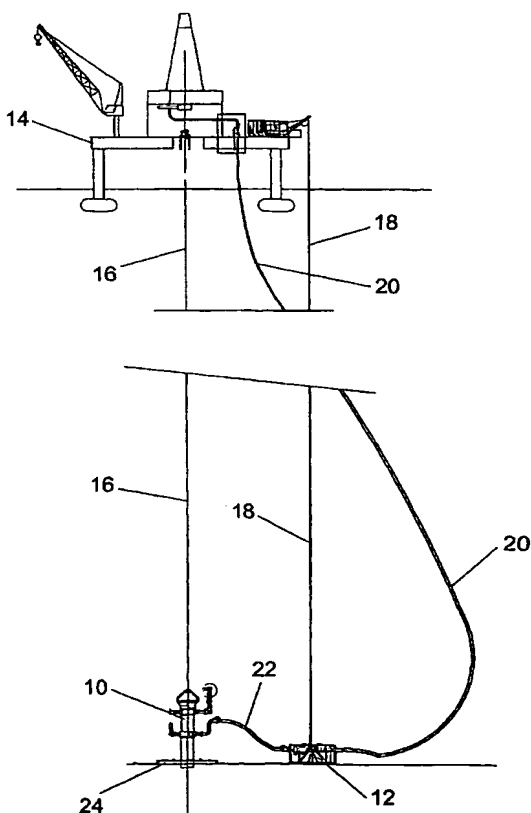
(71) Applicant (for all designated States except US): AGR
SERVICES [NO/NO]; Lonavegen, Postboks 163, N-5342
Straume (NO).

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

(72) Inventor; and
(75) Inventor/Applicant (for US only): STAVE, Roger
[NO/NO]; Valahøgda 9, N-5355 Knarvik (NO).

[Continued on next page]

(54) Title: DEVICE FOR REMOVAL AND FILTRATION OF DRILLING FLUID



(57) Abstract: The invention relates to a device for removal and fil-
tration of drilling fluid at top hole drilling, where a suction module
(10) comprises an extended, pipe-formed body (30), open at the top
and which is arranged to an ocean-bottom penetrating pipe, through
which a drill stem is led for drilling of the top hole, and where the
pipe-formed body (30) comprises at least one outlet passage (32) in
the pipe wall for export of return drilling fluid from the bore hole to
a pump module (12). The invention is characterised in that the pipe-
formed body (30) comprises a filtration device with through open-
ings, where the mentioned openings are arranged to let through, to
at least one outlet passage (32), return drilling fluid containing sus-
pended material, such as swelling clay and stones, having a size that
is less than the diameter of the inlet pipe of the pump or the openings
of the pump.



SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, — *with amended claims*
GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.